

**JAK LINGKO URBAN PUBLIC TRANSPORT PERFORMANCE EVALUATION ON TRAYEK 21, 22, 24, 25, 26, 27, 28, 29, AND 30 OF PROVINSI DKI JAKARTA****Arga Saputra**

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E-mail: [arga04saputra@gmail.com](mailto:arga04saputra@gmail.com)**ABSTRACT**

Passenger public transportation is a means of transportation used to serve the public in DKI Jakarta, along with the increase in private vehicle ownership which is increasing while urban transport has decreased the number of passengers. The decline makes demand not proportional to availability. There are several factors that influence the decline in public interest in using city transportation, one of which is the level of service provided is still inadequate, therefore it is necessary to conduct an evaluation of the performance of urban transport on the Jak 21-30 route. Based on the results of the evaluation using the technical guidelines for organizing public transportation in urban areas on fixed routes and routes, as well as minimum service standard parameters based on the World Bank, the method used is performance evaluation carried out by analyzing public transport performance. For Load Factors there are differences in SPM, the standard issued by the 2002 DRJD Decree is <70%, including Good, while the 21-30 route is still moderate, while the standard issued by the World Bank that is 70% includes compliance, there are 2 routes that do not meet standard. Headway on all routes is good. Travel time on the World Bank, there are 2 routes that do not meet the SPM ideal time of 1-1.5 hours, with the results of the analysis still under 1 hour. So in comparison using the SPM (World Bank) Standard does not meet because the round-trip routes on the Jak 21 and 22 routes are too short and have major centers such as airports and malls.

**Key word:** city transportation,;evaluation; performance; service.

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**INTRODUCTION**

Along with the rapid development of technology in DKI Jakarta area and the increasing mobilization of people who are active in their environment. Distribution and mobilization began to be supported by the increasing ownership of private vehicles which will have an impact on the decrease in public interest to use urban public transport. Transportation as the most accessible means of public transport by the public, where we know together that public transportation has a serious problem today as routes are less efficient to change modes, many public transports pursue rent, parking carelessly on the shoulder of the road, from which many cause very congested congestion, many people still use private transportation and lack of public interest to use public transportation. Based on the above problems the GOVERNMENT of DKI Jakarta has built jak lingko program in DKI Jakarta area, Jak Lingko means an integrated and sustainable transportation system. With the program, there needs to be an evaluation of the performance of Jak Lingko Service Transportation, especially in corridors 21, 22, 24, 25, 26, 27, 28, 29, 30, to know the performance of the public transportation service.

The concept of public transport passengers in traveling can be influenced by the needs of people to move. So the use of public transportation is the right choice to choose for people who do not have private vehicles. The need for more motorized vehicles to operate. This shows that motorized vehicles are an effective medium for use as a means of transportation (Hana K, Juang A, 2019); Cicilia et al, 2019); (Syaiful S, Wahid N, 2020). Public transportation in Jakarta is the most dominant form of transportation as a substitute for private cars. This mode of transportation also affects road conditions as a means of supporting motorized vehicles to operate. Good road conditions increase the speed of public transportation (Syaiful S, Elvira Y, 2017).

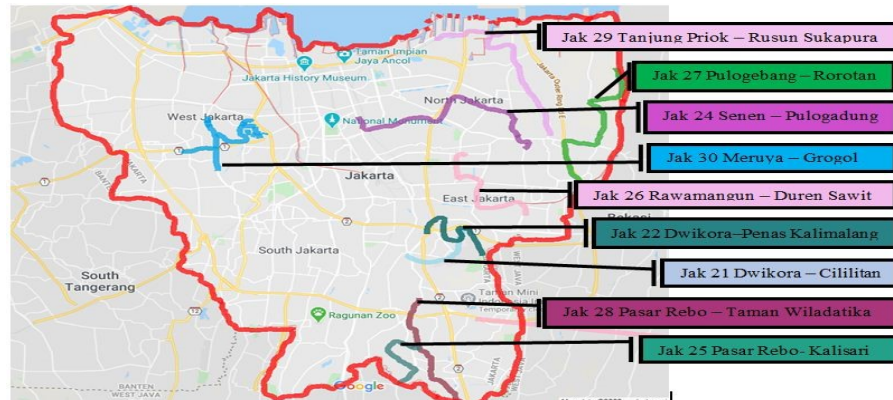
**RESEARCH METHODS**

## Research Time

The research time was conducted on Tuesday and Saturday morning rush hour (07:00 - 09:00 WIB), afternoon rush hour (11:00 - 13:00 WIB) afternoon rush hour (16:00 – 18:00 WIB) Monday, Tuesday represents weekdays and Saturday represents a holiday.

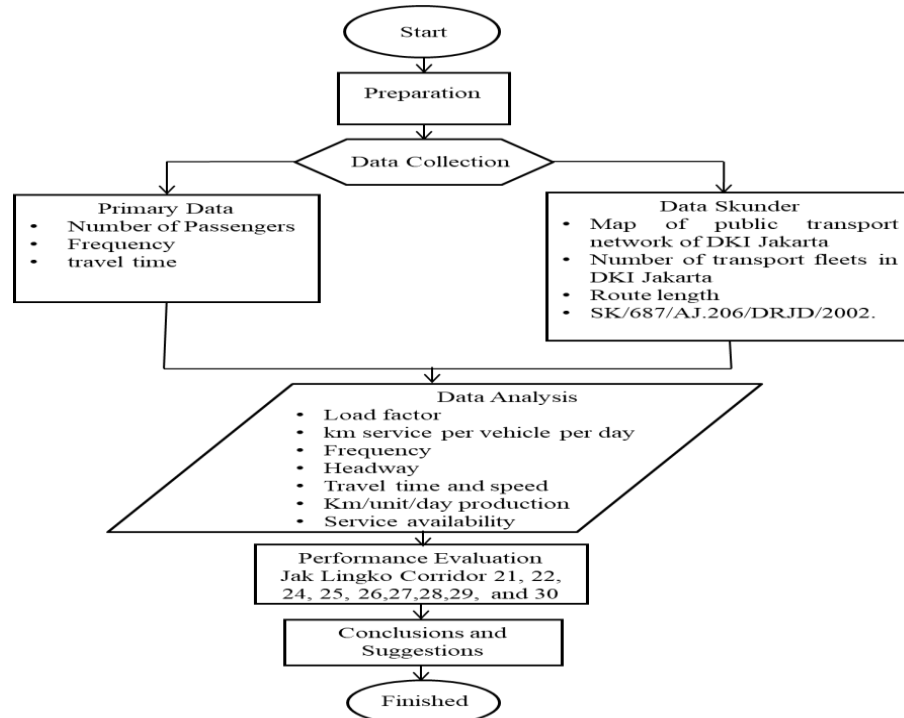
## Research Sites

The location of this research site is the city of DKI Jakarta, especially corridors 21 – 30, here is the route line corridor 21 – 30:



**Figure 1.** Research Sites (Source: Processing results from google maps)

The stage of this research is displayed in the form of flow chart as follows:



**Figure 2.** Research flow chart

## RESULTS AND DISCUSSIONS

## Passenger data

The survey results were conducted from 07.00 – 09.00 WIB for the morning rush time, 11:00-13:00 WIB for afternoon time, 16:00 -18:00 WIB for afternoon rush time. By way of survey on public transportation and record the number of passengers who ride and get off public transportation.

Table 1. Passenger data

Code Route	Route	Time	Passenger		
			Monday	Tuesday	Saturday
Jak 21	Dwikora – Cililitan	Busy morning	11	11	10
		Lunch break	7	9	8
		Busy afternoon	11	9	11
		<b>Average</b>	10	10	10
Jak 22	Dwikora – Penas Kalimalang	Busy morning	11	10	11
		Lunch break	8	9	10
		Busy afternoon	10	11	11
		<b>Average</b>	10	10	11
Jak 24	Senen – Pulogadung	Busy morning	11	11	11
		Lunch break	9	6	7
		Busy afternoon	11	9	10
		<b>Average</b>	10	9	9
Jak 25	Pasar Rebo – Kalisari	Busy morning	9	9	11
		Lunch break	6	7	7
		Busy afternoon	9	11	8
		<b>Average</b>	8	9	9
Jak 26	Rawamangun – Duren Sawit	Busy morning	10	11	10
		Lunch break	7	8	8
		Busy afternoon	8	9	10
		<b>Average</b>	8	9	9
Jak 27	Pulogebug – Rorotan	Busy morning	10	9	9
		Lunch break	10	6	8
		Busy afternoon	11	9	11
		<b>Average</b>	10	8	9
Jak 28	Pasar Rebo – Taman Wiladatika	Busy morning	11	11	11
		Lunch break	6	10	8
		Busy afternoon	9	11	11
		<b>Average</b>	9	11	10
Jak 29	Tanjung Priok – Rusun Sukapura	Busy morning	11	10	10
		Lunch break	9	8	8
		Busy afternoon	11	11	9
		<b>Average</b>	10	10	9
Jak 30	Meruya – Grogol	Busy morning	10	10	8
		Lunch break	6	5	6
		Busy afternoon	9	9	11
		<b>Average</b>	8	8	8

Source: Survey Results 2020

### Load factor

Examples of load factor calculations are as follows.

$$Lf = Pnp/C \times 100 \% = 10/11 \times 100 \% = 100 \%$$

**Table 2.** Load factor

Code	Route	Time	Passenger		
			Monday	Tuesday	Saturday
Jak 21	Dwikora – Cililitan	Busy morning	100	100	91
		Lunch break	64	82	73
		Busy afternoon	100	82	100
		<b>Average</b>	87,9	87,9	87,9
Jak 22	Dwikora – Penas Kalimalang	Busy morning	100	91	100
		Lunch break	73	82	91
		Busy afternoon	91	100	100
		<b>Average</b>	87,9	90,9	97,0
Jak 24	Senen – Pulogadung	Busy morning	100	100	100
		Lunch break	82	55	64
		Busy afternoon	100	82	91
		<b>Average</b>	93,9	78,8	84,8
Jak 25	Pasar Rebo – Kalisari	Busy morning	82	82	100
		Lunch break	55	64	64
		Busy afternoon	82	100	73
		<b>Average</b>	72,7	81,8	78,8
Jak 26	Rawamangun – Duren Sawit	Busy morning	91	100	91
		Lunch break	64	73	73
		Busy afternoon	73	82	91
		<b>Average</b>	75,8	84,8	84,8
Jak 27	Pulogebang – Rorotan	Busy morning	91	82	82
		Lunch break	91	55	73
		Busy afternoon	100	82	100
		<b>Average</b>	93,9	72,7	84,8
Jak 28	Pasar Rebo – Taman Wiladatika	Busy morning	100	100	100
		Lunch break	55	91	73
		Busy afternoon	82	100	100
		<b>Average</b>	78,8	97,0	90,9
Jak 29	Tanjung Priok – Rusun Sukapura	Busy morning	100	91	91
		Lunch break	82	73	73
		Busy afternoon	100	100	82
		<b>Average</b>	93,9	87,9	81,8
Jak 30	Meruya – Grogol	Busy morning	91	91	73
		Lunch break	55	45	55
		Busy afternoon	82	82	100
		<b>Average</b>	75,8	72,7	75,8

Source: Analysis Results 2020

From the average load factor analysis using equation 2.1, the largest percentage of load factors is on Jak 22 Route (Dwikora – Penas Kalimalang), Jak 28 (Rebo Market – Taman Wiladatika), with a value of 97.0%, while for Jak 25 route (Rawamangun – Duren Sawit), Jak 27 (Pulogebang – Rorotan) and Jak 30 (Meruya – Grogol) have the smallest percentage with a value of 72.7%.

Table 3. Frekuensi

Code Route	Route	Time	Frekuensi (kend/jam)		
			Monday	Tuesday	Saturday
Jak 21	Dwikora – Cililitan	Busy morning	49	47	46
		Lunch break	57	53	51
		Busy afternoon	55	59	62
		<b>Average</b>	<b>53</b>	<b>53</b>	<b>53</b>
Jak 22	Dwikora – Penas Kalimalang	Busy morning	25	26	28
		Lunch break	35	37	34
		Busy afternoon	30	26	29
		<b>Average</b>	<b>30</b>	<b>30</b>	<b>30</b>
Jak 24	Senen – Pulogadung	Busy morning	29	25	24
		Lunch break	26	32	33
		Busy afternoon	33	30	30
		<b>Average</b>	<b>29</b>	<b>29</b>	<b>29</b>
Jak 25	Pasar Rebo – Kalisari	Busy morning	34	31	27
		Lunch break	33	29	32
		Busy afternoon	27	33	34
		<b>Average</b>	<b>31</b>	<b>31</b>	<b>31</b>
Jak 26	Rawamangun – Duren Sawit	Busy morning	18	15	17
		Lunch break	18	15	18
		Busy afternoon	15	21	16
		<b>Average</b>	<b>17</b>	<b>17</b>	<b>17</b>
Jak 27	Pulogeang – Rorotan	Busy morning	27	23	29
		Lunch break	25	30	27
		Busy afternoon	27	25	23
		<b>Average</b>	<b>26</b>	<b>26</b>	<b>26</b>
Jak 28	Pasar Rebo – Taman Wiladatika	Busy morning	23	30	25
		Lunch break	32	23	30
		Busy afternoon	26	29	27
		<b>Average</b>	<b>27</b>	<b>27</b>	<b>27</b>
Jak 29	Tanjung Priok – Rusun Sukapura	Busy morning	30	31	26
		Lunch break	36	33	36
		Busy afternoon	32	34	36
		<b>Average</b>	<b>33</b>	<b>33</b>	<b>33</b>
Jak 30	Meruya – Grogol	Busy morning	53	57	54
		Lunch break	58	54	58
		Busy afternoon	55	53	54
		<b>Average</b>	<b>55</b>	<b>55</b>	<b>55</b>

Source: Survey results 2020

Based on the survey results on Jak 21 – Jak 30 routes, it can be noted that Jak Lingko Transportation Service has the highest frequency on Jak 30 Route (Meruya – Grogol) with an average of 55 vehicles/hour, Frequency gets high value because the number of vehicles passing through Jak 30 passes through the largest centers of rise such as: government center, Terminal, Station, Mall Ciputra Jakarta, Mall taman anggrek, Cenral park Jakarta, Universiatas Tarumanegara, Trisakti University, Krida Wacana Christian University, Royal Taruma Hospital, Rs. Sumber Sanas. While the service with the lowest average frequency is Jak Route 26 (Rawamangun – Duren Sawit) as many as 17 vehicles / hour, because on jak route 26 the largest rise center is not like Jak 30 (Meruya – Grogol) so that the vehicle that will be able to be a fan on the route is still low so the frequency value is low compared to other routes.

#### Time between (Headway)

The headway is a measure that states the distance and time of two consecutive vehicles that go through a single observation point. The headway for each Jak Lingko Public Transport Route can be shown in the table below.

**Table 4.** Headway

Code Route	Route	Time	Headway (minutes)		
			Monday	Tuesday	Saturday
Jak 21	Dwikora – Cililitan	Busy morning	2.45	2.55	2.61
		Lunch break	2.11	2.26	2.35
		Busy afternoon	2.18	2.03	1.94
		<b>Average</b>	<b>2.25</b>	<b>2.28</b>	<b>2.30</b>
Jak 22	Dwikora – Penas Kalimalang	Busy morning	4.80	4.62	4.29
		Lunch break	3.43	3.24	3.53
		Busy afternoon	4.00	4.62	4.14
		<b>Average</b>	<b>4.08</b>	<b>4.16</b>	<b>3.98</b>
Jak 24	Senen – Pulogadung	Busy morning	4.14	4.80	5.00
		Lunch break	4.62	3.75	3.64
		Busy afternoon	3.64	4.00	4.00
		<b>Average</b>	<b>4.13</b>	<b>4.18</b>	<b>4.21</b>
Jak 25	Pasar Rebo – Kalisari	Busy morning	3.53	3.87	4.44
		Lunch break	3.64	4.14	3.75
		Busy afternoon	4.44	3.64	3.53
		<b>Average</b>	<b>3.87</b>	<b>3.88</b>	<b>3.91</b>
Jak 26	Rawamangun – Duren Sawit	Busy morning	6.67	8.00	7.06
		Lunch break	6.67	8.00	6.67
		Busy afternoon	8.00	5.71	7.50
		<b>Average</b>	<b>7.11</b>	<b>7.24</b>	<b>7.08</b>
Jak 27	Pulogebang – Rorotan	Busy morning	4.44	5.22	4.14
		Lunch break	4.80	4.00	4.44
		Busy afternoon	4.44	4.80	5.22
		<b>Average</b>	<b>4.56</b>	<b>4.67</b>	<b>4.60</b>
Jak 28	Pasar Rebo – Taman Wiladatika	Busy morning	5.22	4.00	4.80
		Lunch break	3.75	5.22	4.00
		Busy afternoon	4.62	4.14	4.44
		<b>Average</b>	<b>4.53</b>	<b>4.45</b>	<b>4.41</b>
Jak 29	Tanjung Priok – Rusun Sukapura	Busy morning	4.00	3.87	4.62
		Lunch break	3.33	3.64	3.33
		Busy afternoon	3.75	3.53	3.33
		<b>Average</b>	<b>3.69</b>	<b>3.68</b>	<b>3.76</b>
		Busy morning	2.26	2.11	2.22

Code Route	Route	Time	Headway (minutes)		
			Monday	Tuesday	Saturday
Jak 30	Meruya – Grogol	Lunch break	2.07	2.22	2.07
		Busy afternoon	2.18	2.26	2.22
		<b>Average</b>	<b>2.17</b>	<b>2.20</b>	<b>2.17</b>

Source: Analysis results 2020

Example:

$H = 60/\text{frekuensi}$ , observation from 07:00 - 09:00 is obtained

$H = 120/49 = 2.45$  Minutes

The overall results of headway analysis data can be seen in table 4.6 above. On Jak Lingko public transport route there is the highest score on Jak 26 (Rawamangun – Duren Sawit) which is 7.24 minutes and the lowest on jak 30 route (Meruya – Grogol) which is 2.17 minutes. This is because the frequency value is too kecil resulting in the size of the headway value and vice versa.

### Travel time and speed

Here is an example of determining travel time during the morning rush hour at 07.00 - 09.00 WIB as follows:

Example:

$W = T/J$        $W = 48/10,90 = 4,4$  Minutes /km

From the results of the analysis for the entire Jak Lingko route during the morning, afternoon, and afternoon rush hours obtained the average value, the following analysis results can be seen in table 5 below.

**Table 5.** Travel time analysis results

Code Route	Route	Time	Travel Time (minutes/km)		
			Monday	Tuesday	Saturday
Jak 21	Dwikora – Cililitan	Busy morning	4,4	4,6	4,1
		Lunch break	5,1	5,3	5,5
		Busy afternoon	4,2	3,9	4,0
		<b>Average</b>	5	5	5
Jak 22	Dwikora – Penas Kalimalang	Busy morning	5,1	4,8	5,5
		Lunch break	5,5	6,4	5,8
		Busy afternoon	5,2	4,6	4,5
		<b>Average</b>	5,3	5,3	5,3
Jak 24	Senen – Pulogadung	Busy morning	4,8	4,7	4,8
		Lunch break	5,0	5,0	4,8
		Busy afternoon	4,5	4,6	4,7
		<b>Average</b>	4,8	4,8	4,8
Jak 25	Pasar Rebo – Kalisari	Busy morning	5,0	4,8	4,8
		Lunch break	5,0	5,0	5,1
		Busy afternoon	4,8	4,9	4,9
		<b>Average</b>	4,9	4,9	4,9
Jak 26	Rawamangun – Duren Sawit	Busy morning	5,4	4,9	5,7
		Lunch break	5,4	5,3	4,9
		Busy afternoon	4,7	5,1	4,8
		<b>Average</b>	5,2	5,1	5,1

Code Route	Route	Time	Travel Time (minutes/km)		
			Monday	Tuesday	Saturday
Jak 27	Pulogebang – Rorotan	Busy morning	5,3	5,1	5,6
		Lunch break	6,1	6,4	6,2
		Busy afternoon	5,4	5,4	5,1
		<b>Average</b>	5,6	5,6	5,6
Jak 28	Pasar Rebo – Taman Wiladatika	Busy morning	4,6	5,4	5,3
		Lunch break	5,5	4,6	5,0
		Busy afternoon	5,0	5,1	4,8
		<b>Average</b>	5,0	5,1	5,0
Jak 29	Tanjung Priok – Rusun Sukapura	Busy morning	5,7	5,8	5,3
		Lunch break	6,2	6,2	6,6
		Busy afternoon	5,4	5,3	5,4
		<b>Average</b>	5,8	5,7	5,8
Jak 30	Meruya – Grogol	Busy morning	4,7	4,8	4,7
		Lunch break	5,7	5,4	5,8
		Busy afternoon	4,8	5,0	4,7
		<b>Average</b>	5,1	5,1	5,1

Source: 2020 analysis results

Of all Jak Lingko routes, the highest average is 5.8 minutes/km, and the lowest is 4.8 minutes/km.

Travel Speed is the rate of movement of traffic and is often expressed in km/h units, using the 2.4 equation. For example in the morning rush hour at 07.00 - 09.00 WIB.

Travel speed = (J.)/( W)= 10.90/( 50 ) where the travel time is still in minutes must be changed in units of hours. Travel speed = 10.90/( 50 /60) = 10.90/( 0.83) = 13 km/h

The speed for each City Transport route in 2020 can be shown in the table below.

**Table 6.** Travel Speed

Code Route	Route	Time	Travel Speed (km/h)		
			Monday	Tuesday	Saturday
Jak 21	Dwikora – Cililitan	Busy morning	13	10	15
		Lunch break	10	16	12
		Busy afternoon	14	13	14
		<b>Average</b>	13	13	13
Jak 22	Dwikora – Penas Kalimalang	Busy morning	9	8	13
		Lunch break	13	14	10
		Busy afternoon	11	12	10
		<b>Average</b>	11	11	11
Jak 24	Senen – Pulogadung	Busy morning	12	11	16
		Lunch break	16	14	13
		Busy afternoon	11	14	10
		<b>Average</b>	13	13	13
Jak 25	Pasar Rebo – Kalisari	Busy morning	14	13	10
		Lunch break	15	10	16
		Busy afternoon	8	14	10
		<b>Average</b>	12	12	12
Jak 26	Rawamangun – Duren Sawit	Busy morning	13	12	11
		Lunch break	10	14	10
		Busy afternoon	14	10	14



Code Route	Route	Time	Travel Speed (km/h)		
			Monday	Tuesday	Saturday
Jak 27	Pulogebang – Rorotan	<b>Average</b>	12	12	12
		Busy morning	15	9	7
		Lunch break	8	16	12
		Busy afternoon	9	8	14
Jak 28	Pasar Rebo – Taman Wiladatika	<b>Average</b>	11	11	11
		Busy morning	16	8	14
		Lunch break	10	16	16
		Busy afternoon	10	12	6
Jak 29	Tanjung Priok – Rusun Sukapura	<b>Average</b>	12	12	12
		Busy morning	9	13	8
		Lunch break	10	8	14
		Busy afternoon	11	9	7
Jak 30	Meruya – Grogol	<b>Average</b>	10	10	10
		Busy morning	13	9	13
		Lunch break	14	12	9
		Busy afternoon	10	15	13
		<b>Average</b>	12	12	12

Source: Analysis results 2020

From the table above it is known that jak 21 route (Dwikora – Cililitan), Jak 24 (Senen – Pulogadung) has the highest average speed of 13 km/h, and the lowest is on Jak 29 route (Tanjung Priok – Rusun Sukapura), which has an average speed of 10 km/h.

Passenger production/km service

**Table 7.** Passenger Production/Service Km

No	Route	Total Fleet	Pnp/Km
21	Jak 21 (Dwikora-Cililitan)	22	1.53
22	Jak 22 (Dwikora-Penas Kalimalang)	14	1.14
24	Jak 24 (Senen-Pulogadung)	43	0.52
25	Jak 25 (Pasar Rebo-Kalisari)	23	0.94
26	Jak 26 (Rawamangun-Duren Sawit)	22	0.81
27	Jak 27 (Pulogebang-Rorotan)	33	0.51
28	Jak 28 (Pasar Rebo-Taman Wiladatika)	25	1.03
29	Jak 29 (Tanjung Priok-Rusun Sukapura)	36	0.96
30	Jak 30 (Meruya-Grogol)	77	0.67

In the table above there is a route that has parameters Pnp /km more than 1.08 found on jak 21 route (Dwikora-Cililitan), Jak 22 (Dwikora-Penas Kalimalang), meaning on Jak 21 and 22 routes able to finance in its oprasional, other routes have not been able to finance this because pnp/km is still below 1.08.

Fleet availability

Examples of fleet availability calculations are as follows;

$$K = 50 / (2.30 \times 1) = 21.75 \quad K = 21.75 / 22 \times 100\% = 98.86 \approx 99\%$$

The following fleet availability can be seen in the table below.

**Table 8.** Fleet availability

No	Route	Number of fleets/cycle time	Total fleet	%SGO
21	Jak 21 (Dwikora-Cililitan)	21.75	22	99%
22	Jak 22 (Dwikora-Penas Kalimalang)	13.47	14	96%
23	Jak 24 (Senen-Pulogadung)	42.73	43	99%
24	Jak 25 (Pasar Rebo-Kalisari)	22.77	23	99%
25	Jak 26 (Rawamangun-Duren Sawit)	22.11	22	100%
26	Jak 27 (Pulogebang-Rorotan)	32.96	33	100%
27	Jak 28 (Pasar Rebo-Taman Wiladatika)	24.30	25	97%
28	Jak 29 (Tanjung Priok-Rusun Sukapura)	34.57	36	96%
29	Jak 30 (Meruya-Grogol)	76.92	77	100%

Source: Analysis Results 2020

Based on the results of the analysis of fleet availability on jak 26 route (Rawamangun-Duren Sawit), Jak 27 (Pulogebang-Rorotan), Jak 30 (Meruya-Grogol) is the highest route that has reached Ready To Use Oprasi which is with a value of 100%, the lowest routes are Jak 22 (Dwikora-Penas Kalimalang) and Jak 29 (Tanjung Priok-Rusun Sukapura) with a score of 96%

#### Jak Lingko Public Transport Service Level Against Minimum Service Standards

In this study the performance that can be obtained from surveys that have been conducted will be compared to public transport SPM, so it will be known whether Jak Lingko's transport performance observed is in accordance with the standardization of public transportation by SPM World Bank and decree of the Director General of Land Transportation Number: SK/687/AJ.206/DRJD/2002 on Technical Guidelines for The Maintenance of Public Passenger Transport in Urban Areas In Fixed and Regular Routes with parameters are load factor, headway, travel speed, and fleet availability

**Table 9.** Sk Load Factor comparison. DRJD/2002 with SPM World Bank

No	Route	Description	Unit	Result analysis	Parameter SPM SK Dirjen 2002			Information	SPM World Bank	Information
					less	moderate	good			
1	Jak 21	Load faktor	%	87.9	>100	70 - 100	<70	Moderate	70%	Fulfill
2	Jak 22	Load faktor	%	97.0	>100	70 - 100	<70	Moderate		Fulfill
3	Jak 24	Load faktor	%	93.9	>100	70 - 100	<70	Moderate		Fulfill
4	Jak 25	Load faktor	%	81.8	>100	70 - 100	<70	Moderate		Fulfill
5	Jak 26	Load faktor	%	84.8	>100	70 - 100	<70	Moderate		Fulfill
6	Jak 27	Load faktor	%	93.9	>100	70 - 100	<70	Moderate		Fulfill
7	Jak 28	Load faktor	%	97.0	>100	70 - 100	<70	Moderate		Fulfill
8	Jak 29	Load faktor	%	93.9	>100	70 - 100	<70	Moderate		Fulfill
9	Jak 30	Load faktor	%	75.8	>100	70 - 100	<70	Moderate		Fulfill

Source: Analysis results 2020

From the entire Jak Lingko route on the Jak 21 - Jak 30 route, based on public transport performance standard SK/687/AJ.206/DRJD/2002 on The Implementation of Public Transport in The City Area In Fixed and Regular Routes, for the overall load factor on jak 21 - 30 routes is included in the moderate parameters. The regulation of the Directorate General of Land Transportation of the World Bank on Minimum Service Standards, on the load factor for the entire Jak 21 -30 route is included in the parameters of meeting the Minimum Service Standard of 70%,

**Table 10.** Headway SK DRJD 2002 comparison with SPM World Bank

No	Route	Description	Unit	Result analysis	Parameter SPM SK Dirjen 2002			Information	SPM World Bank	Information
					less	moderate	good			
1	Jak 21	Headway	minute	2.3	>15	10 - 15	<10	Good	1 - 12	Fulfill
2	Jak 22	Headway	minute	4.16	>15	10 - 15	<10	Good		Fulfill
3	Jak 24	Headway	minute	4.21	>15	10 - 15	<10	Good		Fulfill
4	Jak 25	Headway	minute	3.91	>15	10 - 15	<10	Good		Fulfill
5	Jak 26	Headway	minute	7.24	>15	10 - 15	<10	Good		Fulfill
6	Jak 27	Headway	minute	4.67	>15	10 - 15	<10	Good		Fulfill
7	Jak 28	Headway	minute	4.53	>15	10 - 15	<10	Good		Fulfill
8	Jak 29	Headway	minute	3.76	>15	10 - 15	<10	Good		Fulfill
9	Jak 30	Headway	minute	2.20	>15	10 - 15	<10	Good		Fulfill

Source: Analysis results 2020

From the table above it can be noted that the comparison of SK/687/AJ.206/DRJD/2002 on The Implementation of Public Transportation in The City Area of Fixed and Regular Routes, for the entire Jak 21-30 route including Good because the anasisi results on the Jak 21-30 route are still below the standard value of <10 based on SK. DRJD/2002.

Based on the Directorate General of Land Transportation (World Bank). For the Minimum Service Standard value for the headway which is 1-12 minutes, the overall value obtained from the analysis result is not passed / less than the standard value means the headway value has met the SPM. Therefore, the above comparison of headway value on Jak Lingko route 21-30 belongs to the category of Good service.

**Table 11.** Travel Speed Comparison with SPM

No	Route	Description	Unit	Result analysis	Parameter SPM SK Dirjen 2002			Information	SPM World Bank	Information
					less	moderate	good			
1	Jak 21	Travel speed	Km / hour	13	< 5	6 - 10	>10	Good	10 - 12 Km/hour	Slower
2	Jak 22	Travel speed	Km / hour	11	< 5	6 - 10	>10	Good		Fulfill
3	Jak 24	Travel speed	Km / hour	13	< 5	6 - 10	>10	Good		Slower
4	Jak 25	Travel speed	Km / hour	12	< 5	6 - 10	>10	Good		Fulfill
5	Jak 26	Travel speed	Km / hour	12	< 5	6 - 10	>10	Good		Fulfill
6	Jak 27	Travel speed	Km / hour	11	< 5	6 - 10	>10	Good		Fulfill
7	Jak 28	Travel speed	Km / hour	12	< 5	6 - 10	>10	Good		Fulfill
8	Jak 29	Travel speed	Km / hour	10	< 5	6 - 10	>10	Moderate		Fulfill
9	Jak 30	Travel speed	Km / hour	12	< 5	6 - 10	>10	Good		Fulfill

Source: Analysis results 2020

Based on SK Parameters. DRJD/2002, on the results of the overall analysis of jak 21-30 routes fall into the category of Good only at jak 29 entered into the moderate category. Meanwhile, based on SPM from the World Bank for Jak 21 and Jak 23 routes is slower than the Minimum SPM Service Standard stipulated. This is because the route is experiencing traffic congestion, causing delays at the speed of travel.

**Table 12.** Fleet Availability

No	Route	Description	Unit	Result analysis	Parameter SPM SK Dirjen 2002			Information	SPM World Bank	Information
					less	moderate	good			
1	Jak 21	Fleet availability	%	99%	<80	80-89	90-100	Good	80-90%	Fulfill
2	Jak 22	Fleet availability	%	96%	<80	80-89	90-100	Good		Fulfill
3	Jak 24	Fleet availability	%	99%	<80	80-89	90-100	Good		Fulfill
4	Jak 25	Fleet availability	%	99%	<80	80-89	90-100	Good		Fulfill
5	Jak 26	Fleet availability	%	100%	<80	80-89	90-100	Good		Fulfill
6	Jak 27	Fleet availability	%	100%	<80	80-89	90-100	Good		Fulfill
7	Jak 28	Fleet availability	%	97%	<80	80-89	90-100	Good		Fulfill
8	Jak 29	Fleet availability	%	96%	<80	80-89	90-100	Good		Fulfill
9	Jak 30	Fleet availability	%	100%	<80	80-89	90-100	Good		Fulfill

Source: Analysis results 2020

From the comparison of fleet availability using sk parameter standards. DRJD/2002 and The World Bank's Minimum Service Standards, from the analysis of all routes jak 21-30 get a good percentage value, because nilia percentage is not below 80.

## CONCLUSION

Based on the results of data management and also analysis on Jak Lingko Transportation in DKI Jakarta province, that the performance of Jak Lingko Transportation on Jak 21, Jak 22, Jak 24, Jak 25, Jak 26, Jak 27, Jak 28, Jak 29, and Jak 30 can be summed up as follows:

The performance of public transport services of passengers on the Jak 21 - 30 route, based on public transport performance indicators there are seven indicators, among others: The highest load factor is 97.0%, for the lowest tryek is 72.7%. Production of km service per vehicle per day for the 9 routes is still below the target value of 200 km, the highest frequency is 55 vehicles/hour, while the service with the lowest average frequency is as much as 17 vehicles/hour, headway on jak lingko public transport route has the highest value of 7.24 minutes and the lowest is 2.17 minutes. Travel time From the entire route Jak Lingko gets the highest average value of 5.8 minutes/km, and the lowest value is 4.8 minutes/km, and the highest vehicle speed is 13 km/h, and the lowest there is an average speed of 10 km/h. the highest route fleet availability has reached Ready Use Oprasi which is with a value of 100%, while for the lowest route that is with a value of 96%.

From the analysis of jak lingko public transport service level on Jak 21 - Jak 30 route, based on sk performance weighting parameters comparison. DRJD 2002 weighting performance as well as World Bank Minimum Service Standards. On load factors fall into the moderate category, For Headway on jak route 21-30 which is analyzed quite well. Travel speeds fall into the category of both SPM World Bank at jak 21 and Jak 24 including slower due to traffic congestion. Fleet availability on all routes has filled SGO in the good category.

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